

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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Federal Communications Commission
Office of Secretary

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In the Matter of)

Amendment of the Commission's)
Rules to Establish Part 27, the)
Wireless Communications Service)

GN Docket No. 96-228

REPLY COMMENTS OF NORTHERN TELECOM INC.

Northern Telecom Inc. ("Nortel") hereby responds to the comments on the Commission's proposal to amend its Rules to create a new wireless service in the 2.3 GHz band.^{1/} In the *WCS NPRM*, the Commission proposed to establish a new service with licenses to be awarded by auction, with the licensees provided the flexibility to provide any fixed, mobile, radiolocation or satellite Digital Audio Radio Service in that band.^{2/} Some 51 parties filed comments on the Commission's proposals, most of whom disagreed with various aspects of the *WCS NPRM*. As explained below, Nortel too believes that the "wide open" flexibility provided to licensees under the Commission's proposal will not serve the public interest. To assist the Commission in meeting its objectives for a successful auction, Nortel urges the

1/ Amendment of the Commission's Rules to Establish Part 27, the Wireless Communications Service, FCC 96-441, released November 12, 1996 (hereafter "WCS NPRM").

2/ WCS NPRM at ¶ 1.

Commission instead to define more precisely the services that can be provided by the WCS licensees.

Nortel agrees with those commenters that criticized the *WCS NPRM*'s proposal to provide licensees with nearly unbridled flexibility in the services they could offer in this spectrum.^{3/} The failure to limit the services that might be offered creates a great deal of uncertainty for manufacturers, because they do not know whether any of the licensees will be offering fixed, mobile, terrestrial or satellite services in these bands. Given the resulting uncertainty, a manufacturer would be reluctant to dedicate the extensive resources necessary to develop products to operate in the 2.3 GHz band without having any assurance that a sufficient number of licensees will offer any particular service in that spectrum sufficient to create a viable market.

New product development entails significant time and costs, including research and development, standards setting (to ensure interoperability) and testing. This process typically involves much more than simply "adjusting a few settings" in currently available products in order to allow them to operate in new and different bands. Nortel and presumably other manufacturers are unwilling to commit the resources to these efforts without some assurance that a market for the particular services contemplated will actually develop.^{4/}

3/ E.g., Lucent at p. 4, Alcatel at p. 2, TIA at p. 5.

4/ Moreover, the absence of any similar allocations in these bands in other countries further increases the risk that an adequate market will not develop for any particular service in the 2.3 GHz band.

The hesitancy of manufacturers to develop products for an unknown market would be further exacerbated in this case by the time constraints of needing to commence the auctions for WCS by April of next year. Even if manufacturers were willing to accept the enormous risk of developing products for an uncertain market, they would not be able to provide any meaningful information or support to potential bidders with respect to costs or capabilities of equipment for such an open-ended service in such a short period of time. The absence of any guidelines for the service characteristics makes it impossible to predict accurately what the equipment will cost and what it will be expected to do. As a result, potential bidders will lack the necessary information to bid intelligently, thus creating an adverse secondary impact of lower prices at the auction (and hence lower revenues for the U.S. treasury). In sum, the *WCS NPRM*'s proposal to provide complete flexibility would disserve the public interest.

Nortel observes, however, that narrowing the scope of use of the spectrum to improve vendors' ability to support the necessary infrastructure does not require specification of a particular technology. Indeed, the Commission should "stay the course" on avoiding mandated specifications, since such Commission-imposed standards would limit unnecessarily the approaches that could be taken by the service providers.

Nortel joins with the other commenters that have urged the Commission to limit the types of services to be provided in

the WCS bands in order to avoid these significant problems.^{5/} Nortel believes that for some of the services suggested for these bands, the potential adverse effects far outweigh any potential benefits, so that in narrowing the service flexibility the Commission should preclude those services. Nortel agrees with the commenters who indicated that CMRS services should not be permitted in the WCS spectrum.^{6/} With the recent allocations to PCS, CMRS providers now have access to over 200 MHz of spectrum, and thus their capacity needs should be satisfied well into the future. In addition, "dumping" additional CMRS spectrum into the market right on the heels of the A-, B- and C- block auctions, and during the course of the D-, E- and F-block auctions is likely to disrupt the implementation of those services.

The amounts bid at the auctions were driven by the expectations of supply and demand for the spectrum. Sudden increases in the supply will lower the value of PCS spectrum, and may make it difficult for the licensees to complete the fundraising necessary to deploy their systems. With respect to the ongoing auctions, it may be too late for the participants to adjust their bids to account for the lower spectrum values that would result from a sudden (and unexpected) decrease in the value of PCS spectrum. Moreover, with respect to any future Commission auctions, the amounts bid for licenses will necessarily be lower if the participants believe that the Commission at any time may

^{5/} E.g., AirTouch at pp. 2-5, Motorola at p. 5, PCIA at p. 5, BellSouth at p. 3. Because of the potential problems articulated above, Nortel strongly disagrees with the Competition Policy Institute's support for complete flexibility.

^{6/} E.g., BellSouth at p. 5, Lucent at pp. 6-7.

suddenly increase the supply of the spectrum or licenses being auctioned. For all of these reasons, Nortel believes that the Commission should not permit PCS-like CMRS services in the WCS bands that will be auctioned next April.

Another use contemplated for the WCS spectrum is a wireless substitute for wireline telephone service. Nortel believes that there is a need for spectrum for such uses. Nortel agrees, however, with those commenters that indicated that the WCS spectrum would not be sufficient for a true, wireline-equivalent service.^{7/} Nortel has previously urged the Commission to allocate at least 100 MHz of spectrum for a Fixed Wireless Access ("FWA") service; lesser allocations will not be adequate.^{8/} Nortel envisions FWA as a wireless point-to-multipoint service that will be used by telecommunications carriers as a "wireline equivalent" supplement or alternative to traditional "local loop" technologies.

Nortel believes that the public interest would be well served by an allocation of spectrum for an FWA service. As Nortel demonstrated in its previous comments, such an allocation will enable new and existing carriers to provide: (i) a rapidly

^{7/} E.g., DSC at p. 3. Nortel observes that to the extent customers want something less than true wireline equivalency, CMRS providers now have the option of providing fixed services. Amendment of the Commission's Rules to Permit Flexible Service Offerings in the Commercial Mobile Radio Service, 11 FCC Rcd 8965 (1996). Given the significant amount of spectrum already available for CMRS, Nortel believes that CMRS providers will be able to meet the demand for such "less than wireline equivalent" fixed services without the need for an additional spectrum allocation.

^{8/} See, Comments of Nortel on the DSC Petition for Rulemaking, RM-8837 (filed August 12, 1996).

deployable, cost-competitive alternative facilities-based source of wireline service; (ii) new and/or improved dialtone service in areas where service is not now provided at a quality equivalent to wireline offerings in urban areas; and (iii) seamless interconnectivity with existing fixed network infrastructures. Moreover, service providers in more than 50 countries throughout the world have embraced this technology and support allocating spectrum for its use. Nortel thus renews its request that the Commission promptly initiate a proceeding to allocate spectrum to an FWA service since the WCS bands would be insufficient for those purposes.

While the WCS spectrum may be unsuited for CMRS or FWA services, that spectrum need not lie fallow. Nortel believes that the record in this proceeding does support the application of WCS spectrum for some activities, namely wireless and mobile data services. Nortel agrees with those commenters who advocated such a use for the WCS spectrum.^{9/} Indeed, the significant demand for Internet access services that is threatening to disrupt the wireline network demonstrates the largely unfilled need for such capabilities.^{10/}

Nortel believes that the WCS spectrum would be well-suited as a wireless data service. Nortel is prepared to work with the Commission and the other segments of the industry to identify the necessary rules and technical conditions for such a

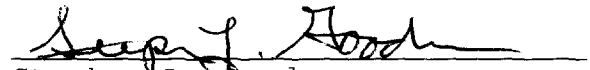
^{9/} E.g., BellSouth at p. 3, Omnipoint at p. 2, Multipoint Networks at p. 1, Bellcore at p. 1.

^{10/} E.g., FCC News Release, November 1, 1996, "Hundt Asks Network Reliability and Interoperability Council to Monitor Impact of Internet Growth on Public Networks."

service, recognizing the relatively short deadlines under which the Commission is working. While significant work in a relatively short timeframe will be necessary, Nortel believes that those efforts will be rewarded.

Nortel believes that such a well-defined service will much better serve the public interest than the WCS NPRM's proposal to provide licensees with total flexibility as to the services to be offered. Nortel therefore urges the Commission to (i) preclude use of the WCS spectrum for CMRS services; (ii) develop service rules for WCS as a wireless data service; and (iii) move ahead rapidly with an allocation of spectrum for FWA service.

Respectfully Submitted,



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Dated: December 16, 1996

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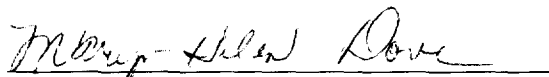
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